

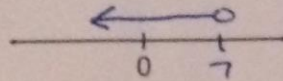
Name: _____

Remediation - Solving Inequalities in One Variable

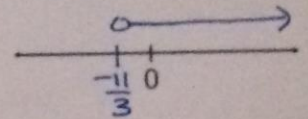
After you have watched the video from the wiki, you should try the following problems and then use the key to check your work. If you are successful, take the re-evaluation quiz. Be sure to follow the directions there.

Directions: Please solve and graph the following inequalities for the unknown. Express any non-integer answers as non-mixed fractions. Do not use decimals. Do not round.

1. $4x + 2(3x - 9) < 52$
 $4x + 6x - 18 < 52$
 $10x - 18 < 52$
 $+18 \quad +18$
 $10x < 70$
 $\frac{10x}{10} < \frac{70}{10}$
 $x < 7$

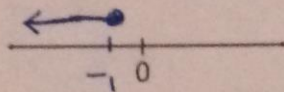


2. $-4m - 2m - 10 < 12$
 $-6m - 10 < 12$
 $+10 \quad +10$
 $-6m < 22$
 $\frac{-6m}{-6} < \frac{22}{-6}$
 $m > -\frac{11}{3}$

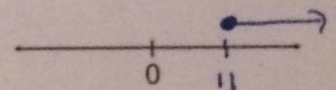


FLIP SYMBOL

3. $-(3y - 9) \geq 12$
 $-3y + 9 \geq 12$
 $-9 \quad -9$
 $-3y \geq 3$
 $\frac{-3y}{-3} \geq \frac{3}{-3}$
 $y \leq -1$

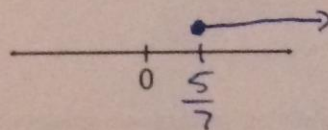


4. $4y \geq 77 - 3y$
 $+3y \quad +3y$
 $7y \geq 77$
 $\frac{7y}{7} \geq \frac{77}{7}$
 $y \geq 11$

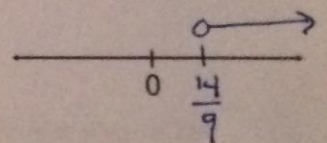


Flip symbol

5. $4x + 7 \leq 12x + 2 - x$
 $4x + 7 \leq 11x + 2$
 $-4x \quad -4x$
 $7 \leq 7x + 2$
 $-2 \quad -2$
 $5 \leq 7x$
 $\frac{5}{7} \leq \frac{7x}{7}$
 $\frac{5}{7} \leq x$
 $x \geq \frac{5}{7}$



6. $\frac{4}{7}h + \frac{2}{3}(3h + 12) > 12$
 $\frac{4}{7}h + 2h + 8 > 12$
 $\frac{18}{7}h + 8 > 12$
 $-8 \quad -8$
 $\frac{18}{7}h > 4$
 $\left(\frac{7}{18}\right) \frac{18}{7}h > 4 \left(\frac{7}{18}\right)$
 $h > \frac{14}{9}$



Use reciprocal